



HSE Program for Innovation Infrastructure Development: interim results and near-term outlook

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HSE Director of Innovation and Enterprise

Meeting of the HSE Council for Innovative Entrepreneurship

December 08, 2011

Dual role of an «economic university»:

- Solutions for economic and social policy
 - Applied research and policy advise for public authorities
 - Continuing education for public and market institutions
 - Leveraging analytical capacity for markets
 - Center of excellence for business customers
 - Transfer in-house research results into marketable services
 - Bringing business expertise into technology transfer system
- + >>> Promotion of innovative entrepreneurship

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HSE IID Program scope

Leveraging analytical and human capacities for markets

1. New forms of university-business cooperation

- Strategic advise to large enterprises
- Technology platforms
- Foresight network

2. Commercialization system

- Knowledge transfer & brokerage
- Project-based faculty and students involvement
- Intellectual property rights management system

3. Entrepreneurship fostering system

- Development of entrepreneurship community
- Entrepreneurship education programs and courses
- Selection and Business acceleration services



Schedule

TIMETABLE	2010	2011	2012	2013	2014	2015	2016	2017
Capacity building		■						
Activities development		■			■			
Sustainability assurance			■		■			
Monitoring period				■				

TARGET MEASURES

R&D income (Mln. Rub.)	1100	1170	1230	1300	1370	1440	1510	1590
# of spin-offs*	1	4	5	8	11	15	17	19
Finance raised (Mln. Rub.)*	8	20	60	90	120	160	200	250
Incubation capacity, projects	4	15	40	60	60	80	80	100
Services income (Mln. Rub.)	-	3	10	12	26	40	57	80

* Cumulative

HSE IID Program management structure

- **Strategy and coordination:**
 - First vice-rector Leonid Gokhberg
 - Council for innovative entrepreneurship
 - International advisory board for foresight studies
 - Program steering committee
- **Organization and management**
 - Director of innovation and enterprise
 - Innovation and enterprise office
 - Research and development office
- **Execution and operation**
 - Thematic groups (6) and projects (30+)
 - Centers for entrepreneurship (4)

Leveraging analytical and human capacity for markets

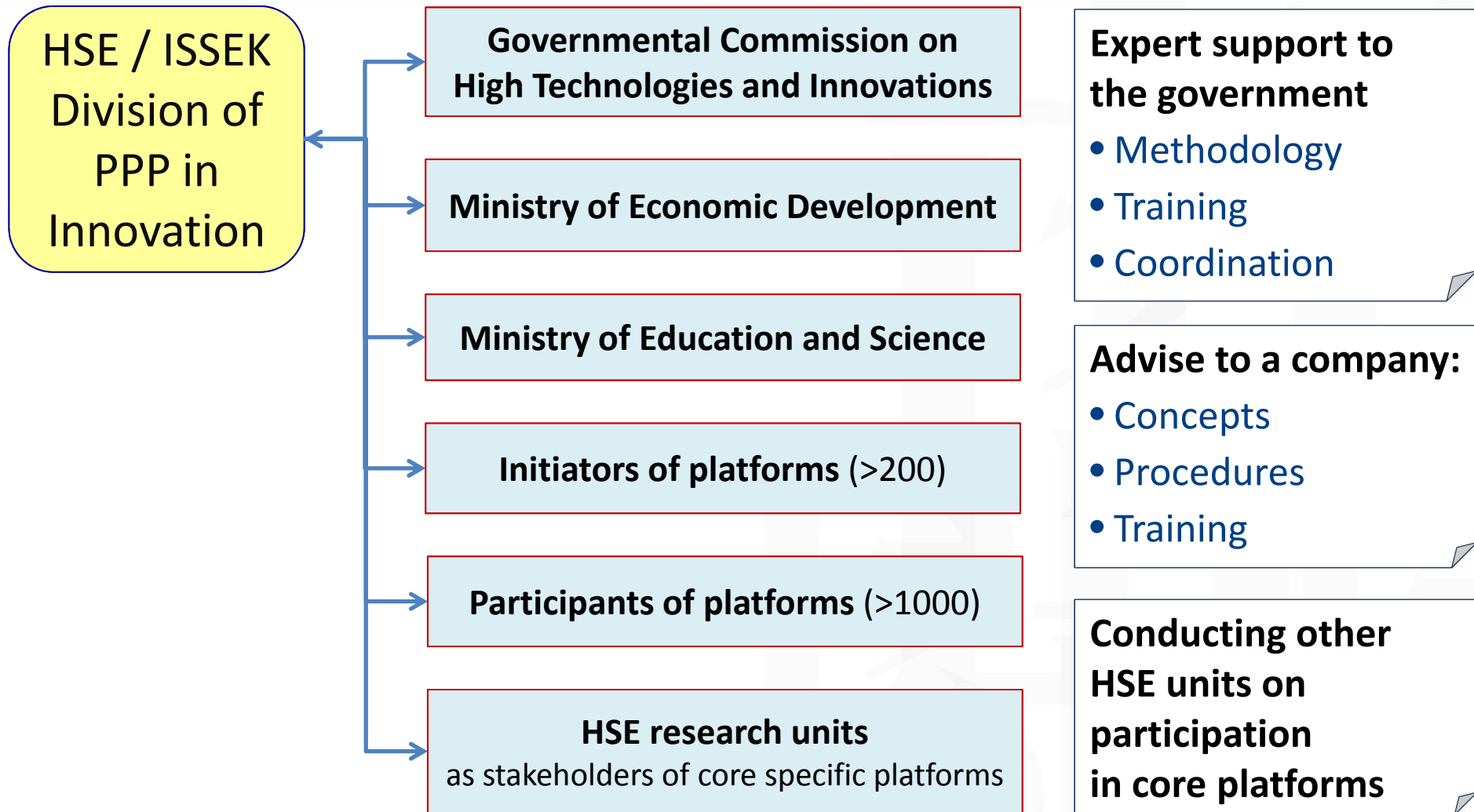
I. New forms of university-business cooperation

- Strategic advise to large enterprises
- Technology platforms
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II. Commercialization system

III. Entrepreneurship fostering system

- Analytical tools for corporate innovation policy
 - R&D strategic planning
 - Foresight-based road-mapping
 - Market and technology assessment
- Creating a company's innovation ecosystem
 - Business-to-Science cooperation
 - Interface to SME's and crowd-sourcing solutions
 - Support to corporate venture funds
- Tailored scientific and expert support to a company
 - Applied research for management and competitiveness
 - On-demand consulting





IID Program: major accomplishments

Technology Platforms

2/2

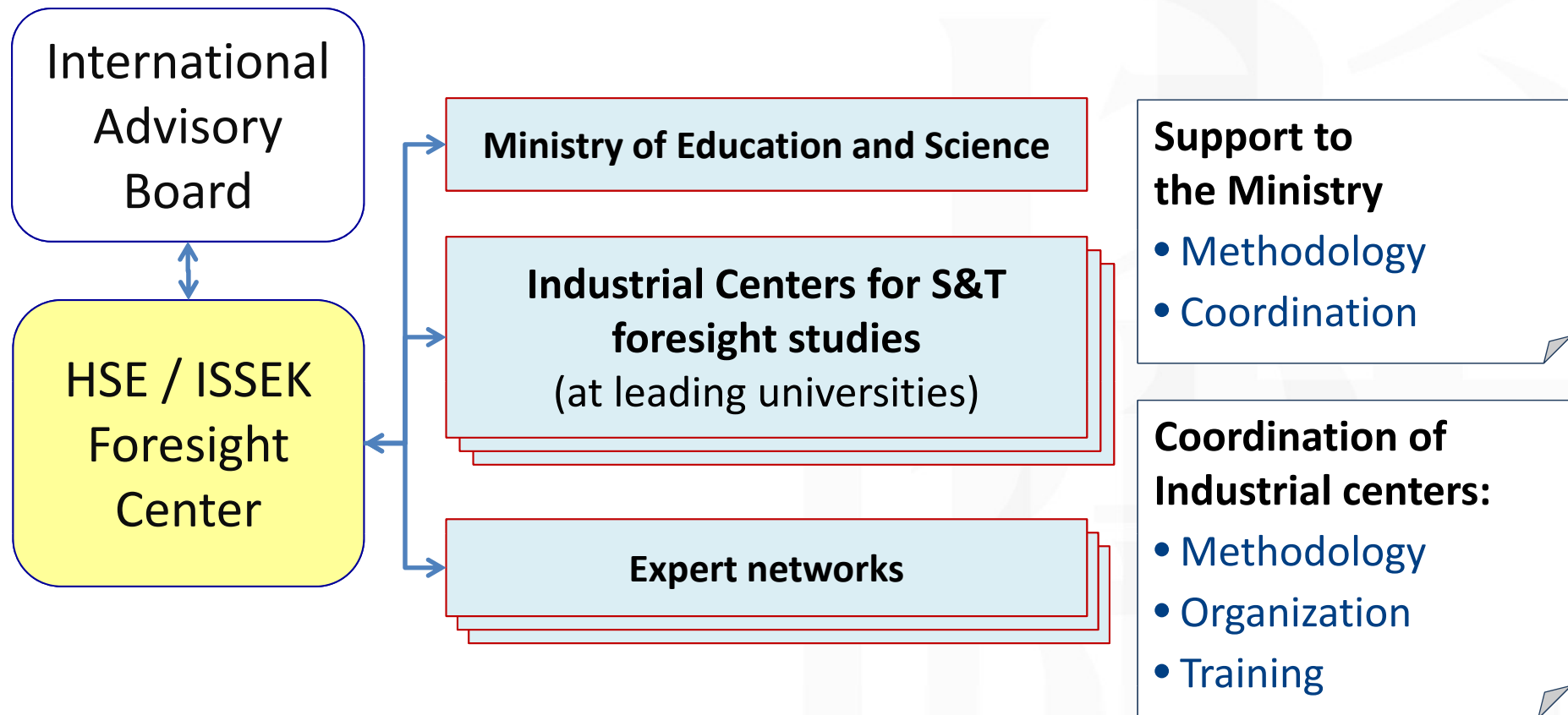
7 (of 28) platforms joined by the HSE*:

Platform	Coordinator
Medicine of the Future	Siberian State Medical University
Bio-Industry and Bio-Resources – BioTech2030	Company “RT-Biotechprom”, Lomonosov Moscow State University
National Software Platform	Concern “Sirius”
National HPC Technology Platform**	Aylamazyan Program Systems Institute of RAS, Lomonosov Moscow State University
Production and Usage of Hydrocarbon Resources	Gubkin Russian State University of Oil and Gas
Deep Conversion of Hydrocarbon Resources	Company “VNIPIneft”
Green Technologies	Russian Geographical Society (NGO)

* These organizations are currently being formed.

** HPC – High Performance Computing.

HSE is an authorized center for methodology of the Russian S&T foresight studies



Leveraging analytical and human capacity for markets

I. New forms of university-business cooperation

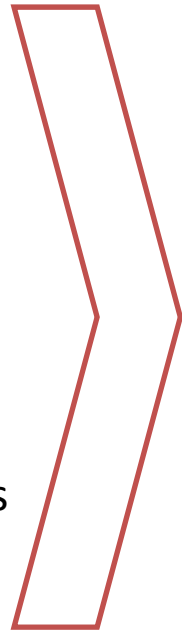
II. Commercialization system

- Knowledge transfer & brokerage
- Project-based faculty and students involvement
- Intellectual property rights management system

III. Entrepreneurship fostering system

Research areas

- Economics
- Sociology
- Management
- Finance
- Linguistics
- Communications
- Logistics
- Computer sciences
- Cognitive sciences
- etc.



Marketable products and services (samples)

- New financial facilities
- Customized analytics
- Customer behavior models
- Business intelligence tools and services
- Games and simulators
- Test systems and visualization tools
- Supply chain management solutions
- etc.



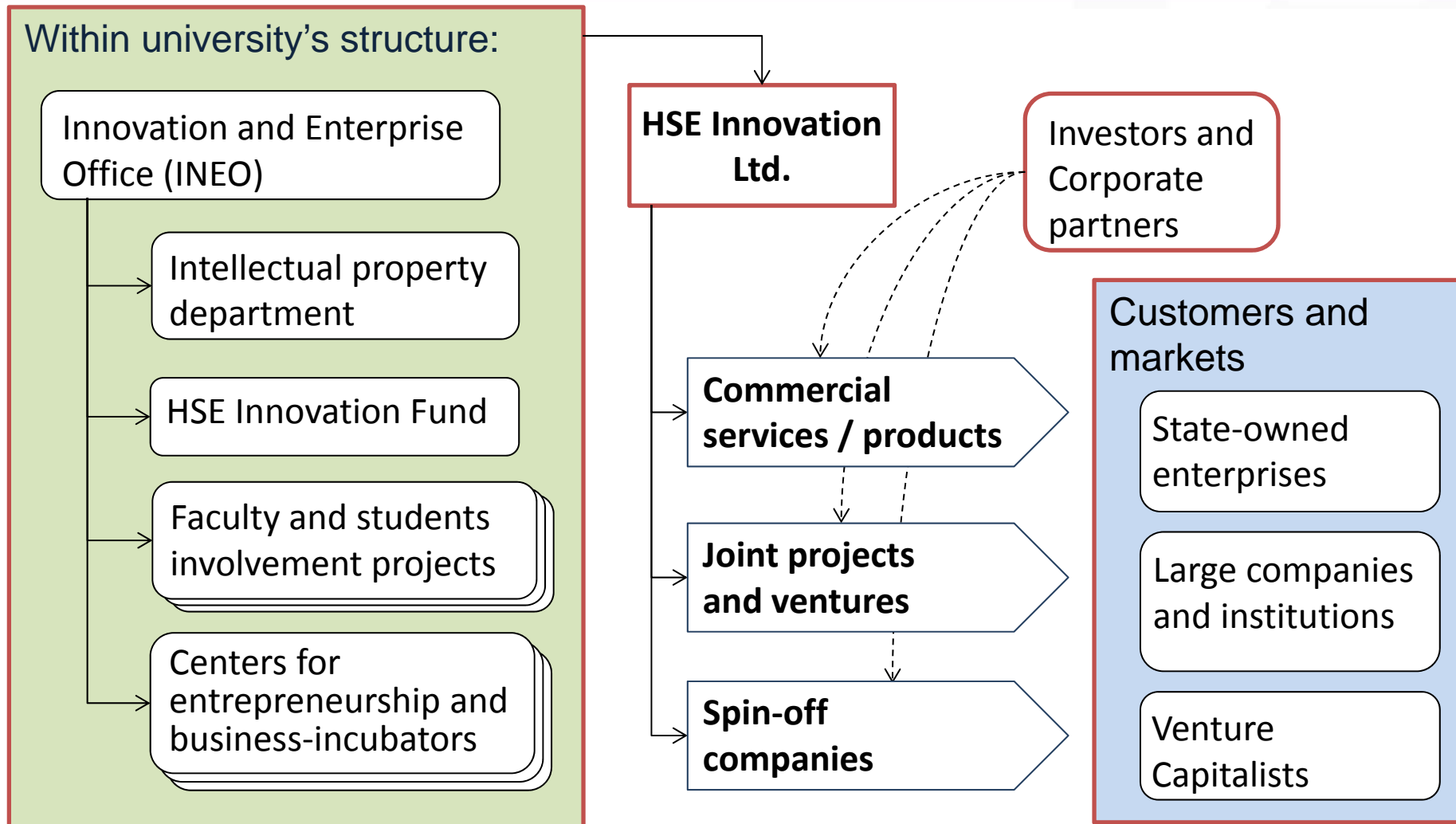
Prospective markets

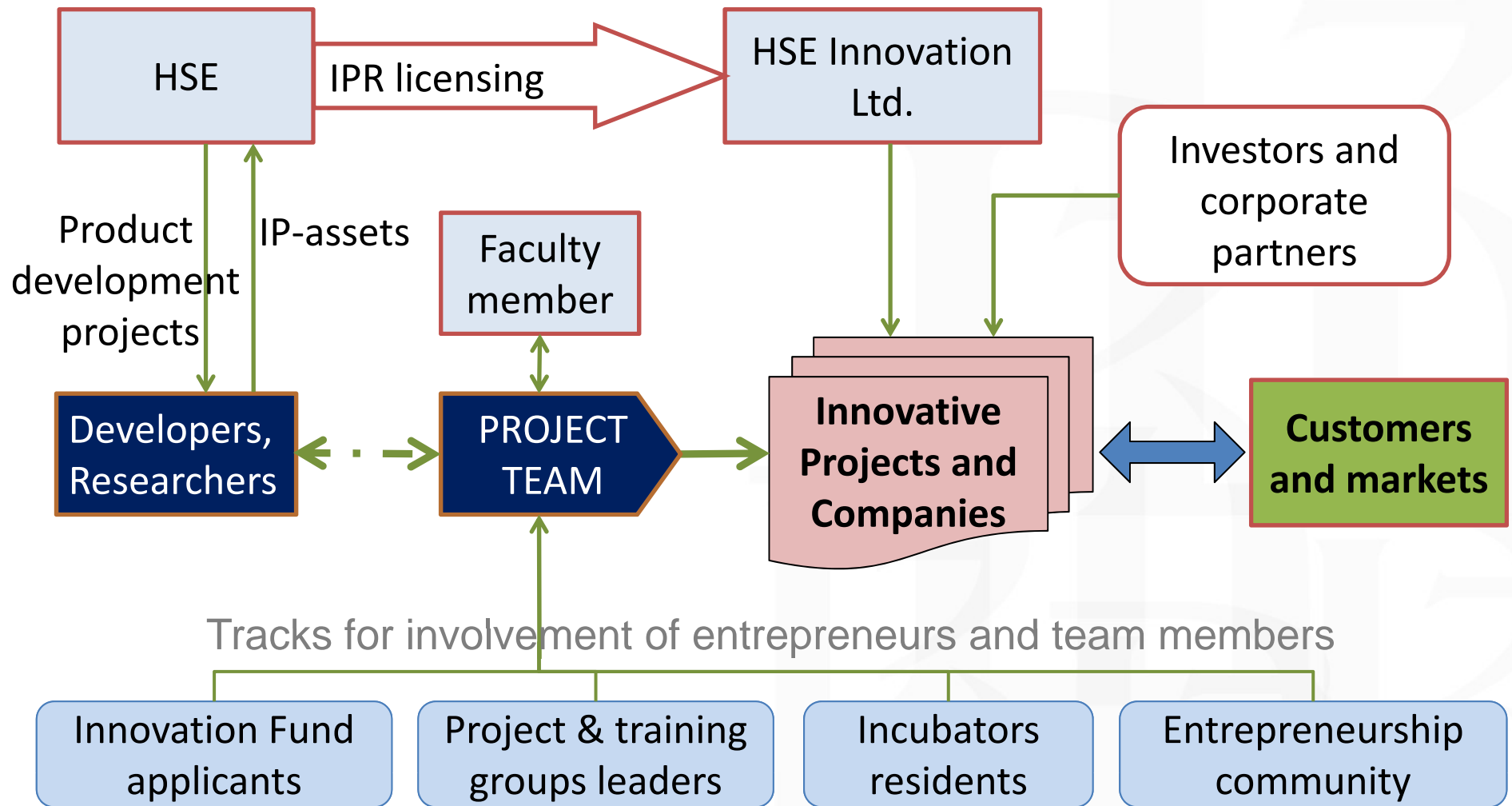
- Financial services
- R&D management
- Marketing
- Corporate governance
- Insurance
- Retail
- Healthcare
- Creative industries
- Education
- etc.



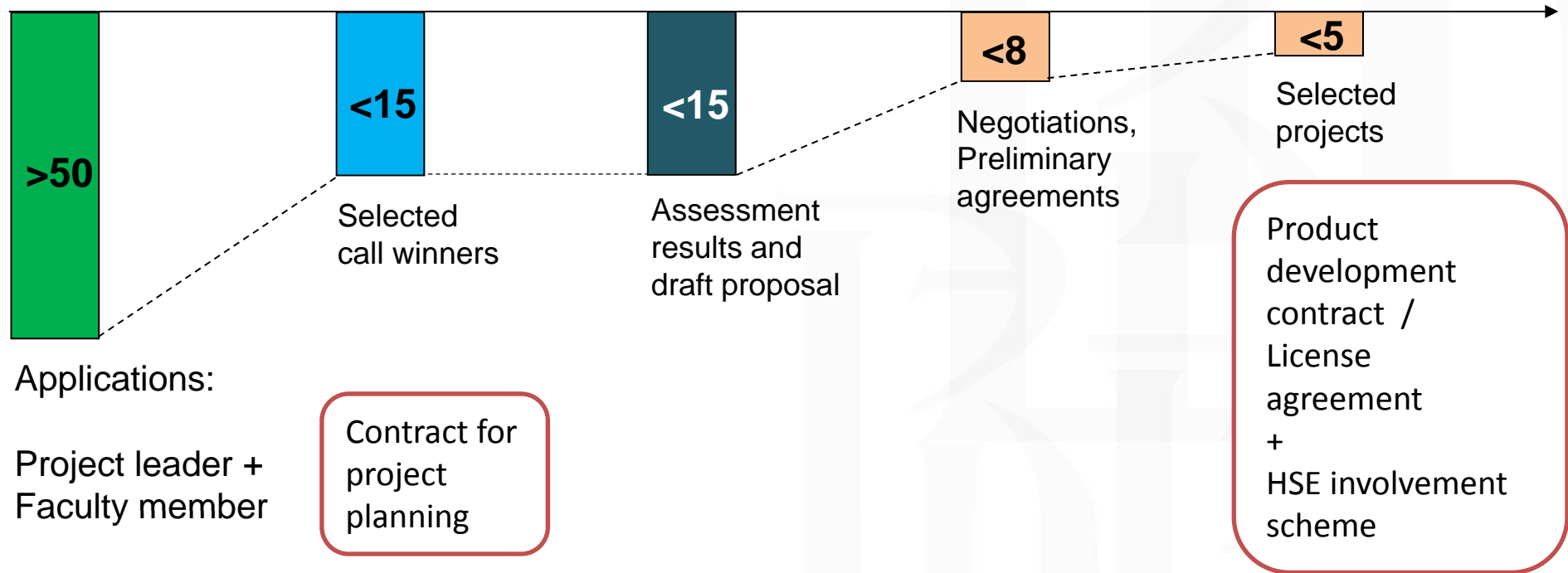
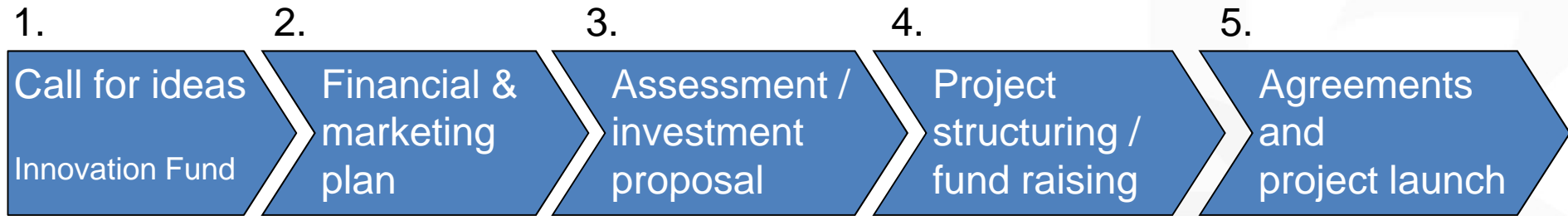
IID Program: major accomplishments

HSE Commercialization System





Projects selection: HSE Innovation Fund track





Samples of applicant projects to the 2nd HSE Innovation Fund call



Product Idea	Target markets	Scientific leader
“Mobile-English” - content delivery system for mobile devices	Foreign language distance-learning and interpreting	Prof. Svetlana Maltseva Head of Department of Innovation and Business in Information Technologies (Faculty of Business Analytics)
Hedging strategies development	Financial services, Risk-management, Financial consulting	Prof. Nikolay Berzon Head of Department of Stock and Investments Market (Faculty of Economics)
Interactive Atlas for Tourism Industry	Customized Analytics for Tourism industry (B2B, B2C)	Prof. Sergey Smirnov Deputy Vice-rector, Director of Institute for Social Policies and Social and Economic Programmes

Core activities:

1. University IP policy development
2. Identifying, perfecting and managing IP assets of the HSE
3. Methodical assistance to HSE units on IP issues
4. IP transactions maintenance (incl. licensing)

Current results:

Framework development

- HSE IPR Framework act drafted
- HSE IPR Policy discussion
- HSE Commercial Secrets Act adopted
- IP management procedures described

Operational

- HSE IP rights check-up
- IP assets protection (4+12 cases)
- Licensing deals (2+4 cases)
- Supporting other HSE units (multiple)

Commercialization: nearest milestones



CURRENT ACHIEVEMENTS

PRIORITIES FOR 2012

System development

- Process awareness
- Formation of “HSE Innovation”
- IP department services launch

- Scale and visibility
- Evaluation services
- Prototyping facilities

Project portfolio

- 15 Innovation Fund winners
- 3 product developments
- 2 equity acquisitions*

- Project developments
- Investor relations

Faculty & students involvement

- Direct negotiations (>20)
- East West Digital News case
- Project-training Groups study

- Adoption of Project-training Groups methodology
- Portfolio projects staffing

IP rights

- IPR policy discussion
- Know-How security system
- Valuable IP-assets protected

- IPR policy introduction
- Portfolio projects IPR deals

Partnerships and networking

- Direct international liaisons (USA, Europe, Singapore)

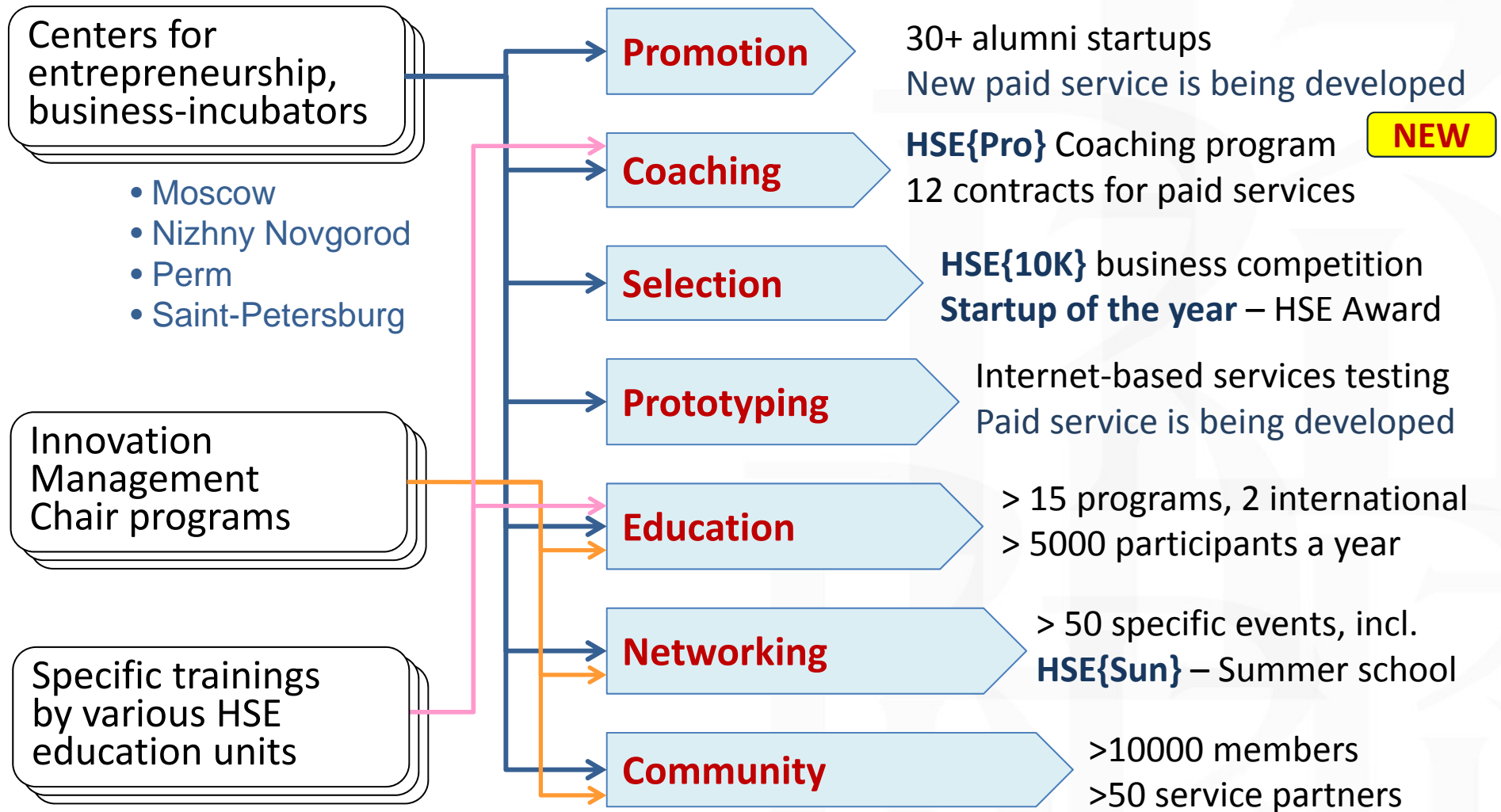
- Pre-seed collaborations
- Inter-university contacts

* deals are being processed, closing expected until the end of December.

Leveraging analytical and human capacity for markets

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- II. Commercialization system
- III. Entrepreneurship fostering system**
 - Development of entrepreneurship community
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Entrepreneurship fostering system



Developed by the HSE Innovation Management Institute:

Facts of 2011

Expectations for 2012

MTech in R&D&I Management in a company

- 11 courses developed
- new type of educational programs appeared at HSE

- first intake of 20 - 25 students
- 2 specializations

Minor in Entrepreneurship


- first intake: 112 students for 3 courses
- partnership with University of Twente (NL)

- 19 courses during 1,5 years
- next intake



Entrepreneurship fostering system HSE{10K} business competition



- 6 years history
- 140 applications in May 2011
- 80 experts jury
- 12 finalists
- The Winner -  **Maxugen** (Mobile DNA-diagnostics)
2nd prize at BIT-2011 (RU), 2nd prize at IBTEC-2011 (USA)
-  **LinguaLeo** - winner of BIT 2011 (\$200K)
finalist of HSE{5K} in 2007





Startup of the year

2011 Final Ceremony: December 8

- Since 2008
- 92 nominees by 40+ partner organizations
- 50 experts jury
- 13 finalists in 5 nominations
 - Best Technology
 - Best Start
 - Global Startup
 - Best Social Business
 - Best Team



ДЕПАРТАМЕНТ НАУКИ,
ПРОМЫШЛЕННОЙ ПОЛИТИКИ
И ПРЕДПРИНИМАТЕЛЬСТВА
ГОРОДА МОСКВЫ



McKinsey&Company





Annual award “Startup of the year” Infrastructural Partners (Nominators)



Annual award “Startup of the year” Nominees (Finalists)



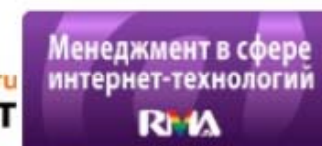
Доктор на работе

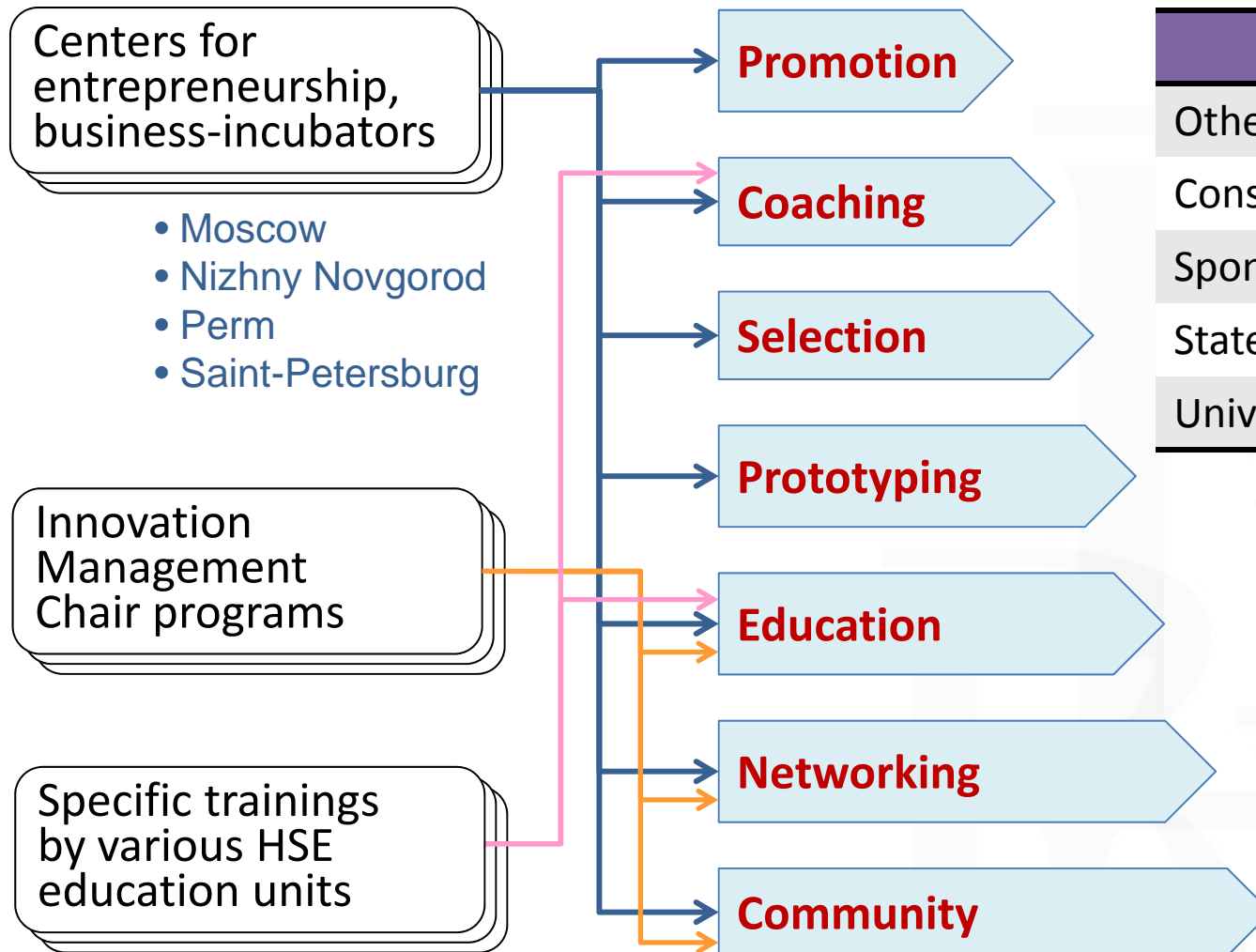
MegaTable

АПАРТАТОР™



Annual award “Startup of the year” Media Partners





	2011	2012
Other services	--	10%
Consultancy	15%	25%
Sponsorship	20%	20%
State programs	40%	25%
University	25%	20%

Final remarks

Next challenge: interconnection of these systems

- I. New forms of university-business cooperation
- II. Commercialization system
- III. Entrepreneurship fostering system

Key risks:

- Lack of **time**: complexity requires larger transition periods
- Misunderstanding of **scale** and ratio between systems
- Mistakes in making **right offers**



Thank you
for your attention!

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